

- Dorn, —** Eine Beobachtung des "grünen Strahls." P. 197.
Hann, J. Sonnenschein in Wien im Winter 1903-1904. Pp. 197-198.
Wolfer, A. Provisorische Sonnenflecken-Relativzahlen. P. 198.
Das Wetter. Berlin. 21 Jahrgang.
Walter, Gustav. Der Wert der Beobachtungen auf dem Ben Nevis in Schottland für die Wetterprognosen. Pp. 81-84.
 — Eine elektro-magnetische Theorie des Nordlichtes. Pp. 92-93.
Gaea. Leipzig. 40 Jahrgang.
 — Luftelektrizität und Erdladung. [Abstract of work of H. Ebert.] Pp. 330-335.
 — Die klimatischen Verhältnisse der Mandschurei. Pp. 374-375.

BAROMETRIC PRESSURE AT ORONO, ME.

By Prof. JAMES S. STEVENS, dated Orono, Me., April 12, 1904.

Referring to my previous paper in the MONTHLY WEATHER REVIEW, November, 1903, p. 528, I may say that the meteorological station at Orono, Me., is connected with the Maine State College, now the University of Maine. Its records begin with January 1, 1869. Up to the year 1892, inclusive, they were kept by Dr. M. C. Fernald, then president of the college. Since that time they have been in charge of the Maine Agricultural Experiment Station. In 1893, and subsequently, some of the observations were omitted, and the methods of recording were not entirely uniform. I have undertaken to summarize the results for publication, and the subjects treated will appear from time to time in the following order: Barometry, thermometry, moisture, prevailing winds, wind velocity, cloudiness, general atmospheric conditions, optical and electrical phenomena conclusions.

1. *Barometry.*—The instrument used in the earlier period of these observations was made by J. S. F. Huddleston of Boston, Mass. It was twice compared with a standard instrument, and the error was regarded as small enough to be negligible, but was considered when making the observation. In later years the barometer used was one manufactured by James Green of New York City. It had an error of 0.003, and this error was always considered in recording. Recent standardization shows this barometer to have a negligible error. The times of observation were 7 a. m., 2 p. m., and 9 p. m. The altitude above sea level, as determined by means of the spirit level, was 134 feet from January, 1869, to June 11, 1879, and 129 feet from that time to January, 1893; during the remainder of the period to the present time it is 148 feet. The dates of the missing records were as follows: 1869, June and December; 1893, two-thirds of January; 1895, January and December; 1896, January, February, and June. From October, 1899 to 1903, inclusive, observations were made at 2 p. m. only.

The means published herewith have been reduced to the standard instrumental temperature. The latitude is 44° 54' north and altitude small; therefore the gravity corrections may be neglected as being probably zero. The observations have been reduced to sea level by the formulae and tables given in the Weather Bureau Instructions to Voluntary Observers. In order to take annual and other means I have thought it best to give in italics the best values I could obtain by interpolation between the months contiguous to those for which the data were fragmentary or missing. The means depend in part, therefore, upon graphic interpolations, using the monthly charts of the MONTHLY WEATHER REVIEW for that purpose. The year 1896 was rejected in taking the average.

The figures are the hundredths of an inch and range from 29.54 to 30.12. The figures in italics in Table 1 imply that a number of observations were missing.

TABLE 2.—Monthly and annual barometric pressure at 2 p. m. at Orono, Me.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1900..	75	77	71	72	74	72	72	92	85	98	82	81
1901..	75	70	71	72	74	72	72	92	85	98	82	81
1902..	82	58	76	71	77	65	79	74	92	82	72	83
1903..	68	73	04	70	95	85	67	86	90	85	78	74

TABLE 1.—Monthly and annual barometric pressure at Orono, Me., reduced to sea level and standard gravity.

January.			February.			March.			April.			May.			June.			July.			August.			September.			October.			November.			December.		
7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.	7 a.	2 p.	9 p.			
79	74	77	77	73	69	71	85	81	82	81	82	83	83	83	84	84	80	84	84	80	81	81	82	98	98	76	75	74	74	75	70	63	68		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93	93	86	84	77	72	67	65	65	65		
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93	90	91	92	73	68	69	76	74	77	79	79	76	79	79	76	76	74	74	74	73	73	73	73	93											